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09/912,285	07/24/2001	George A. Teacherson		5196

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EXAMINER

JULES, FRANTZ F

ART UNIT

PAPER NUMBER

3617

DATE MAILED: 08/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/912,285

Applicant(s)

TEACHERSON, GEORGE A.

Examiner

Frantz F. Jules

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-8, 10, 12, 13, 16-19 and 21-23 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 9, 11, 14 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 09 May 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, lines 1-4, the phrase "said elements above disposed in vertical fashion which are disposed lower than said at least one bearing are generally placed into tension when said railcar and said support plate and said means for mounting said support plate rests all weight of said element upon said at least one bearing" is confusing as it is unclear what particular structure applicant is referring to by said elements above disposed in vertical fashion which are disposed lower than the bearing. It was believed that said elements refer to the mounting bracket, but claim 2 suggest that applicant is referring to a different structure. According to claim 1, the mounting means or bracket is the only element that may be positioned below the bearing. Similar confusing term exists in claim 3.

In claim 3, lines 1-3, the phrase "said elements disposed lower in said vertical fashion than said at least one bearing have the properties of lightweight, ultra-strong materials" is confusing as it is unclear what particular structure applicant is referring to by said elements disposed lower in said vertical fashion.

### ***Claim Rejections - 35 USC § 102***

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3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, 6, 8, 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Krause (US 4,547,107).

Claims 1-2, 6, 8, 22-23

Krause teaches all the limitations of claims 1-2, 6, 8, 22-23 by showing in figs. 1-4 an articulated railcar comprising a railcar body (12c), a support plate (58A), means (58) for mounting said support plate upon said railcar body (12c) at least one set of railroad trucks (24), mounting bracket means (44) attached to said at least one set of railroad trucks (24), at least one bearing constituted by horizontal surface (42) mounted upon said mounting means, railroad couplers (16, 18). The elements being disposed in vertical fashion having said at least one set of trucks on the bottom in contact with rails (28), said mounting means (44), said at least one bearing, said support plate (58A), said means (58) for mounting said support plate and said railcar body (12c) situated on top, all in contact when said railcar is coupled to additional ones of said railcar via said couplers (16, 18), and said railcar is separably supported at the juncture of said support plate (58A) and said at least one bearing (42).

The elements disposed lower in said vertical fashion than said at least one bearing are generally placed in tension when said railcar and said support plate and said means for mounting said support plate rest their weight upon said bearing due the fact that when

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the railcar rests upon the bearing, the normal tendency of the load is to shift either forward or backward depending on level of flatness of the track. Also, the bearing surface (42) is slanted as can be seen in fig. 2 to allow for a slight shift forward of the load. Thus, the bearing mounting is normally under tension loading when the rail car is at rest or during operation.

The mounting means (44) being made to clear the support plate as when the railcar is lifted out of the truck for service the support plate will normally be separated from the bearing and therefore clear the mounting means (44).

Said elements above disposed in vertical fashion which are disposed in lower than and including said at least one bearing may be towed in train with no weight placed thereupon as set forth by claim 22.

All said element disposed in vertical fashion are placed fully under said railcar.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 10, 12-13, 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krause (US 4,547,107).

Claims 10, 17-19

Krause teaches all the limitations of claims 10, 17-19 except for an articulated railcar and coupling system made by the method or process steps of placing a plate coupled to

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a rail car via a fastening mean, providing a bearing mounted to a mounting bracket attached to a railcar truck. Krause discloses a finished articulated railcar and coupling system comprising a plate coupled to a rail car via a fastening mean, a bearing mounted to a mounting bracket attached to a railcar truck which have been achieved by a method or process steps, see figs. 1-4. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Krause to include the use of the method or process steps of placing a plate coupled to a rail car via a fastening mean, providing a bearing mounted to a mounting bracket attached to a railcar truck in his advantageous articulated railcar in order to reduce manufacturing tolerance error in the railcar.

#### Claims 12-13

Regarding using steps of designing the structure of said means for mounting to be in tension when the weight of said railcar is placed upon said at least one bearing and said steps further including designing the structure of said means for mounting to have the properties of lightweight, ultra-strong material as recited in claims 12-13, It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Krause to include the use of steps of designing the structure of said means for mounting to be in tension when the weight of said railcar is placed upon said at least one bearing and said steps further including designing the structure of said means for mounting to have the properties of lightweight, ultra-strong material in his advantageous system, as bearing design and material selection is a common and everyday occurrence throughout the truck load bearing design art and the specific use of steps of designing the structure of said means for mounting to be in tension when the weight of said railcar

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is placed upon said at least one bearing and said steps further including designing the structure of said means for mounting to have the properties of lightweight, ultra-strong material would have been an obvious matter of design preference depending upon such factors as the loading imposed on the truck bearing, the yield strength requirement of the bearing mounting material, the maximum weight one is willing to achieve in truck assembly; the ordinarily skilled artisan choosing the best stress profile corresponding to a particular loading imposed on the truck bearing which would most optimize the cost and performance of the device for a particular application at hand, based upon the above noted common design criteria.

7. Claim 3, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krause.

Claims 3, 21

Regarding using elements below the bearing made of material having the properties of lightweight, ultra-strong material as well as couplers for coupling various types of railcars as recited in claims 3, and 21, It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Krause to include the use of materials below the bearing having the properties of lightweight, ultra-strong material as well as couplers for coupling various types of railcars in his advantageous system, as material selection is a common and everyday occurrence throughout the truck load bearing design art and the specific use of materials below the bearing having the properties of lightweight, ultra-strong material as well as couplers for coupling various types of railcars would have been an obvious matter of design preference depending

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upon such factors as the weight of the object to be carried by the truck bearing, the yield strength requirement of the side mounting means material, the amount of flexibility desired in the couplers; the ordinarily skilled artisan choosing the best stress profile corresponding to a particular loading imposed on the side walls which would most optimize the cost and performance of the device for a particular application at hand, based upon the above noted common design criteria.

8. Claims 7, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krause in view of Barefoot (US 5,566,795).

Claims 7, 16

Krause teaches all the limitations of claims 7, 16 except for an articulated railcar or a method of articulation having cooling fins attached to the truck for heat dissipation. The general concept of adding cooling attached to a railcar truck for heat dissipation is well known in the art as illustrated by Barefoot which illustrates in figs. 3-4 a truck (30) having cooling fins attached to a device (74), see Fig. 4, column 7, lines 30-33. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Krause to include the use of cooling fins attached to the truck of in his advantageous articulated railcar as taught by Barefoot in order to prevent overheating of bearing and other component of the railcar truck.

***Allowable Subject Matter***

9. Claims 4-5, 9, 11, 14-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. None of the references of



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record suggests an articulated railcar comprising mounting means with bearing, wherein said mounting means has stand, said stands having retractable bumpers in the manner defined in the instant claims 4-5. Also, None of the references of record suggests an articulated railcar comprising mounting means with bearing, railroad car couplers, wherein said couplers are mounted first upon said railcars and are equivalently mounted upon said mounting means as desired in the manner defined in the instant claim 9, 11.

10. Claim 20 stand allowable. None of the references of record suggests an articulated railcar comprising mounting means with bearing, railroad car couplers, wherein means are provided for providing stands capable of mounting thereupon bumpers and couplers upon said mounting bracket as desired, said stand capable of taking multiple positions in the manner defined in the instant claim 20 and in combination with other limitations of the claim.

### ***Response to Arguments***

11. Applicant's arguments filed 07/03/03 have been fully considered but they are not persuasive.

#### **A. Summary of applicant's argument**

In the amendment, applicant traversed the rejection of the newly amended claims 1-2, 6, and 8 for the following reasons:

1. The reference cited in the 102 rejection, Krause, and Baerfoot do not disclose a bearing as defined by applicant's invention.
2. The prior arts used in the rejection show means of articulation which is different than applicant's disclosure.

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3. The references cited, Krause and Barefoot, fail to meet the claim limitations of lines 15-16 of claim 1 which requires that "said railcar is separably supported at the juncture of said support plate and said at least one bearing".

4. The references cited in the rejection, Krause and Barefoot, cannot be properly combined to yield applicant's invention as there is no showing of a low-friction, multi-function articulation support in the prior art.

**B. Response to applicant's argument**

1. In response to applicant's argument number one, it must be recognized that the claims call for "at least one bearing" without giving any specific detail on the bearing. The word bearing in a broad sense can be read as any surface supporting a structure. There's nothing in the claim that would force one to refer to applicant's specification as applicant seems to argue. In the instant case the horizontal surface identified as item 42 in fig. 2 of Krause meets the criteria of a bearing as it supports or bears plate (58A) which is attached to the car body (12c).

2. Applicant's argument number two is not understood as the rejection addresses the claim language not the specification. The type of articulation shown in the prior art of record does not have to look similar to applicant's invention as long as the prior arts read on the claim.

3. In response to applicant's argument number three, it's factual and accurate that Krauss meets the limitation found in lines 15-16 of claim 1 which requires that "said railcar is separably supported at the juncture of said support plate and said at least one

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bearing". As shown in fig. 2 of Krause patent, said railcar (12c) "is separably supported at the juncture of said support plate and said at least one bearing (42)".

4. Regarding applicant's argument number 1, it should be noted that the claim language doesn't require the need for a low-friction, multi-function articulation support in the prior art. As recited explained above, Krause patent meet all the limitations of the claims as far as a bearing is concerned, and the combination rejection of Krause with Barefoot is based on the teaching of a cooling fins that is attached to the truck which is disclosed by Barefoot. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, One of ordinary skill in the art would have been motivated to incorporate the teaching of a cooling fins that is attached to a truck as disclosed by Barefoot into Krause to arrive at the claimed invention to achieve the benefit among others of preventing failure of the components due to overheating in the truck.

### ***Conclusion***

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz F. Jules whose telephone number is (703) 308-8780. The examiner can normally be reached on Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph S. Morano can be reached on (703) 308-0230. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Frantz F. Jules  
Examiner  
Art Unit 3617

FFJ

August 8, 2003

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A handwritten signature in black ink, appearing to read 'S. Joseph Morano', with a long horizontal flourish extending to the right.

**S. JOSEPH MORANO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600**